

## IN THE CLAIMS

1 1. A method of building a database to perform a search for a computer-

2 implemented transactional service, the database including a plurality of data  
3 entities, the method comprising:

4 defining a first data entity describing a reservable service (reservable) as  
5 comprising data representing an indication of a service to be performed, a time  
6 line for the indicated service describing time intervals in which the service may  
7 be performed over an extended time period, and an indication of the time  
8 duration required for performing the service;

9 comparing at least one of the time intervals to at least a subset of  
10 timelines of the plurality of data entities; and

11 updating the data representing the timeline of the first data entity to be  
12 comprised of a subset of the time intervals to facilitate the search being limited  
13 to the first data entity.

1 2. The method of claim 1, the reservable further comprising data representing  
2 a supplier offering to perform the service.

1 3. The method of claim 1, the reservable formed as an Extensible Markup  
2 Language (XML) expression.

1 4. The method of claim 1, the reservable further comprising data representing  
2 vertical classification as a particular category or family of related services.

1 5. The method of claim 1, the reservable further comprising data representing  
2 a geographic region in which the service is constrained to be performed.

1 6. The method of claim 1, further comprising defining a second data entity  
2 describing an engaged reservable service (engagement) as comprising data  
3 representing an indication of the service to be performed, a date, a time of the  
4 timeline where the time duration is not within the subset of the time intervals,  
5 and a site for the service to be performed, an indication of a customer having  
6 engaged the reservable service, and an indicator that the second data entity is  
7 an engagement to be consummated at a future time.

1 7. The method of claim 6, the engagement formed as an Extensible Markup  
2 Language (XML) expression.

1 8. In a computer-implemented system for exchanging a transactional service  
2 comprising:

3 a database comprising a plurality of reservable services (reservables)  
4 stored as positive first data entities, each reservable including data  
5 representing an indication of a service to be performed, a time line for the  
6 indicated service describing time intervals in which the service may be

7 performed over an extended time period, and an indication of the time duration  
8 required for performing the service; and  
9 a control system configured to update the data associated with at least  
10 one reservable, where the updated data represents a subset of the time  
11 intervals in the timeline that the indicated service may be performed, and is  
12 further configured to search for and retrieve reservables matching service  
13 requests against the subset of the time intervals, the service requests provided  
14 from a source or sources external to the database.

*Best Cont*  
1 9. The system of claim 8 wherein reservables are organized hierarchically by  
2 vertical categories, and wherein the control system searches only in those  
3 portions of the database comprising reservables matching the category of the  
4 service requests.

1 10. The system of claim 8, the database also comprising engaged reservable  
2 services (engagements) stored as negative second data entities, each  
3 engagement including data representing an indication of a service to be  
4 performed, a date, a time of the timeline where the time duration of the second  
5 data entities is not within the subset of the time intervals and a site for the  
6 service to be performed, and an indicator that the second entity is an  
7 engagement to be consummated at a future time, wherein the control system  
8 forms engagements from reservables following matches found between the  
9 service requests and the reservables.

1 11. The system of claim 10 wherein the control system forms the second  
2 entities based upon engaged reservables in the database following formation of  
3 an engagement.

1 12. The system of claim 10 wherein the reservables and the engagements are  
2 implemented as Extensible Markup Language (XML) expressions.

1 13. The system of claim 12 wherein the control system creates supplier-  
2 independent reservables from other XML entities in the database, including  
3 resource capabilities and availabilities.

1 14. The system of claim 13 wherein the control system creates supplier-  
2 specific reservables including supplier identification.

1 15. A method for using a data entity in a database of a computer system to  
2 provide a search of transactional services, the data entity for describing a  
3 reservable service (reservable), comprising:

4 forming the data entity by

5 establishing data representing an indication of a service to be

6 performed, adding data representing an indication of a time

7 duration for the service, adding data representing an indication of

8 time intervals over an extended time line wherein the service may

9 be performed, adding data representing an indicator that the

10 service is not engaged, and updating the data representing the  
11 indication of the time intervals to form a subset of the extended  
12 time line that excludes the time duration of an engaged reservable  
13 (engagement) such that only the services associated with the  
14 subset of the extended time line is available for the search;  
15 and  
16 searching for the data entity associated with the subset of the extended  
17 time line.

*16*  
*17*  
*Cont*  
16. The method of claim 15 further comprising a step adding an indication of a  
supplier offering to perform the service.

1 17. The method of claim 15 wherein the data entity is formed as an Extensible  
2 Markup Language (XML) expression.

1 18. The method of claim 15 further comprising a step for adding an indication  
2 of vertical classification as a particular category or family of related services.

1 19. The method of claim 15 further comprising forming another data entity in  
2 a database, the another data entity describing an engaged reservable service  
3 (engagement), comprising the steps of:

4 accepting a request for the service to be performed from a customer  
5 external to the database;

6 searching the database of reservable services (reservables), each  
7 reservable comprising an indication of a service to be performed, an indication  
8 of time intervals in an extended time line wherein the service may be, and an  
9 indicator that the service is not engaged;  
10 selecting a reservable capable of fulfilling the request for service;  
11 copying information from the reservable to create an engagement  
12 specifying a date, time of the extended timeline where the time duration is not  
13 within the subset of the time intervals and place for the service to be  
14 performed; and  
15 associating the engagement with the customer making the request,  
16 wherein the engaged reservable for the time duration will not be available  
17 to be queried for another search.

1 20. The method of claim 19 wherein the reservable is an Extensible Markup  
2 Language (XML) expression and the engagement formed is an XML expression.

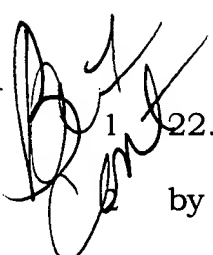
1 21. A method of searching a database comprising:  
2 receiving a customer request including data representing details of a  
3 desired service, where the data representing details includes a requested time  
4 duration;  
5 searching the database for reservables, where each reservable includes  
6 an indication of a service to be performed, a time line for the service describing  
7 time intervals in which the service may be performed over an extended time

8 period, and an indication of an expected time duration required for performing  
9 the service;

10 matching at least the requested time duration of the details of the  
11 customer request against reservables associated with the time line if no other  
12 reservable associated with the service is yet engaged;

13 matching at least the requested time duration of the details of the  
14 customer request against reservables associated with a subset of the time line  
15 if another reservable associated with the service is engaged; and

16 retrieving matching reservables suitable to satisfy the customer request.



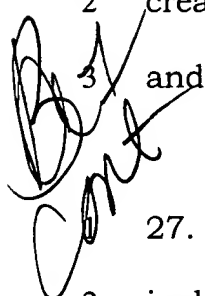
1 22. The method of claim 21 wherein reservables are organized hierarchically  
2 by vertical categories, and wherein, the database is searched only in those  
3 portions comprising reservables matching the category of the service requests.

1 23. The method of claim 21 further comprising forming engagements from  
2 reservables following matches found between the customer request and the  
3 reservables, each engagement including an indication of a service to be  
4 performed, a date, a time of the timeline where the time duration is not within  
5 the subset of the time intervals and a site for the service to be performed, and  
6 an indicator that the entity is an engagement to be consummated at a future  
7 time.

1 24. The method of claim 23 further comprising deleting reservables  
2 from the database, and adding engagements to the database.

1 25. The method of claim 23 wherein the reservables and the engagements are  
2 implemented as Extensible Markup Language (XML) expressions.

1 26. The method of claim 25 wherein supplier-independent reservables are  
2 created from other XML entities in the database, including resource capabilities  
3 and availabilities.

 27. The method of claim 26 wherein supplier-specific reservables are created  
2 including supplier identification.

1 28. The reservable of claim 1, further comprising an indication of a maximum  
2 duration of time for performing the service.

1 29. The reservable of claim 1, further comprising an indication of a minimum  
2 duration of time for performing the service.

1 30. (Canceled).

1 31. (Canceled).



1 32. (Canceled).

1 33. (Canceled).

1 34. (Canceled).

1 35. (Canceled).

1 36. (Canceled).

1 37. (Canceled).

1 38. (New) The method of claim 1, wherein the first data entity and the subset  
2 of the plurality of data entities are associated with the same indicated service  
3 to be performed.

1 39. (New) The method of claim 1, wherein the subset of time intervals of the  
2 first data entity do not overlap the time intervals of the subset of the plurality  
3 of data entities.

1 40. (New) The method of claim 1, wherein the subset of time intervals is  
2 formed by a timespan algebraic operation.